

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/18775

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :C12N 9/48; C12Q 1/37; C07K 1/00; A61K 38/00
US CL :435/212, 23, 24; 530/350; 514/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/212, 23, 24; 530/350; 514/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	RUSSELL et al. The pilE gene product of <i>Pseudomonas aeruginosa</i> required for pilus biogenesis, shares amino acid sequence identity with the N-termini of type 4 prepilin proteins. Molecular Microbiology Vol. 13, No. 6, pages 973-985, 1994.	1-22
A	FILLOUX et al. GSP-dependent protein secretion in Gram-negative bacteria: the Xcp system of <i>Pseudomonas aeruginosa</i> . Microbiology Reviews Vol. 22, pages 177-198, 1998.	1-22
A	DARZINS et al. Molecular genetic analysis of type-4 pilus biogenesis and twitching motility using <i>Pseudomonas aeruginosa</i> as a model system--a review. Gene Vol. 192, pages 109-115, 1997.	1-22

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:	*T*	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*&*	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

31 AUGUST 2000

Date of mailing of the international search report

12 OCT 2000

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B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

EAST Patents Database, Derwent World Patents Database, BIOSIS, EMBASE, MEDLINE, LIFESCI, SCISEARCH, CAPLUS, AND GenEmbl, n_geneseq_36, EST, a_geneseq_, pir_64, SwissProt_38, SPTREMBL_12 nucleic acid and amino acid databases.